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14 July 2016

MEMORANDUM FOR Major General Mark H. Berry, The Adjutant General, Arkansas National Guard, Camp Joseph T. Robinson, North Little Rock, Arkansas 72199-9600

SUBJECT: Findings and Recommendations for Army Regulation (AR) 15-6, Arkansas Army National Guard, Training Accident, Fatality During Annual Training, Fort Chaffee, Arkansas

1. References.

- a. Memorandum of Appointment, dated 15 June, 2016.
- b. Army Regulation (AR) 15-6, Procedures for Administrative Investigations and Boards of Officers, dated 1 April 2016.
- c. AR 385-63, Range Safety, dated 30 January 2012.
- d. AR 600-37, Unfavorable Information, dated 19 December 1986.
- e. AR 600-20, Army Command Policy, dated 6 November 2014.
- f. AR 623-3, Evaluation Reporting System, dated 4 November 2015.
- g. Training and Doctrine Command (TRADOC) Regulation 350-29, Prevention of Heat and Cold Casualties, dated 6 July 2012.
- h. Department of the Army Pamphlet (DA PAM) 385-63, Range Safety, dated 16 April 2014.
- i. Army Techniques Publication 5-19, Risk Management, dated 14 April 2014.
- j. All Army Activities (ALARACT) 042/2016, Heat Illness Prevention for 2016 Heat Season, dated 18 May 2016.
- k. ALARACT 101/2015, Heat Illness Prevention for 2015 Heat Season, dated 25 June 2015.
- l. United States Army Medical Command (MEDCOM) Memorandum, Subject: Heat Illness Prevention Program for the 2015 Heat Season, dated 29 June 2015.

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m. TRADOC Memorandum, Subject: TRADOC Heat Illness Prevention Program
2016, Dated 8 February 2016.

n. Fort Chaffee Training Site Commander Memorandum, Subject: AR ARNG Range
Safety SOP: Guidance and Procedures for Commanders Range Safety Certification
Program to Certify Officers in Charge (OIC) and Range Safety Officers (RSO) for Live
Firing on Small Arms Ranges, dated 6 March 2013.

o. Arkansas Army National Guard (AR ARNG) Regulation 385-63-1, Fort Chaffee
Maneuver Training Center Range Regulation, dated 17 April 2007.

p. III Corps and Fort Hood Regulation 350-16, Prevention of Heat and Cold Injury,
dated 26 April 2004.

2. Background. On 15 June 2016 Major General Mark H. Berry, The Adjutant General
and Commanding General of the Arkansas National Guard, appointed me as an
investigating officer IAW AR 15-6, Section 2-1. c. (See Exhibit 1). The purpose of the
investigation was to determine the facts and circumstances surrounding a training
accident resulting in a fatality of an Arkansas Army National Guard Servicemember
during Training Year 16 Annual Training (AT) at the Fort Chaffee Joint Maneuver
Training Center (FCJMTC) on or about 14 June 2016. The Servicemember was
pronounced dead at approximately 1817 hours, Tuesday June 14th at Mercy Hospital in
Fort Smith, Arkansas.

3. Summary. It is my finding that the 39th Brigade Support Battalion leadership, in
particular the [REDACTED], Battalion Command Sergeant Major, [REDACTED]
[REDACTED], failed to adequately address known hazards
associated with the predicted hot weather environment prior to training commencing on
Range 100 on 14 June 2016 IAW applicable regulations, policy guidance, and standard
recognized practices regarding training in a hot weather environment. These
individuals failed to execute adequate heat illness prevention procedures while
conducting training on Range 100 on 14 June 2016 IAW applicable regulations, policy
guidance, and standard recognized practices regarding training in a hot weather
environment. Further, the [REDACTED], Battalion Command Sergeant Major,
[REDACTED], and [REDACTED] conduct on Range 100 on 14 June
2016 rose to the level of negligence in their duty to protect soldiers from the adverse
effects of heat on 14 June 2016. Finally, there are some apparent deficiencies and
inconsistencies within the Arkansas Army National Guard at the command, major
command, battalion, and training center levels in regards to policies, procedures,
training, and leadership related to heat illness prevention programs.

Overview. [REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

MEMO [REDACTED]
SUBJECT: [REDACTED] [REDACTED] for Army Regulation (AR) 15-6, Advances
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[REDACTED]

[REDACTED]

It should be noted that the Findings and Recommendations contained herein are preliminary and may be supplemented, IAW AR 15-6, Section 2-5. a., after review of a criminal investigation being conducted by the Arkansas State Police, the Safety Investigation being conducted IAW AR 385-10, The Army Safety Program (See Exhibit 2), and the complete autopsy being conducted by the State Medical Examiner's Office of the Arkansas State Crime Laboratory (See Exhibit 87). The estimated completion dates of the Arkansas State Police criminal investigation and Arkansas State Crime Laboratory autopsy are anywhere from three (3) weeks to two (2) months from the date of this memorandum.

4. Summary of Relevant & Material Facts. After a thorough review of the evidence, the following relevant and material facts were found during the course of this investigation:

a. 20150615, ALARACT 101/2015, Heat Illness Prevention for 2015 Heat Season, dated 25 June 2015 is released (See Exhibit 77). This annual guidance issued by HQDA referenced all of the attendant Army guidance on heat illness, injury, prevention, and mitigation, and prescribed annual training and risk assessment techniques for training in a hot weather environment.

b. 201512, 39th BSB, in particular the A0/S3 MAJ Adam Young, began planning for a Small Arms Perimeter Defense Live Fire Exercise (SAPD LFX) at AT in June of 2016 (See Exhibit 31).

c. 20160115, Members of 39th BSB, in particular MAJ Adam Young and CPT Theresa Walker, visited FCJMTC, which included visiting Range 100, and continued planning to execute the SAPD LFX at AT in June 2016 (See Exhibit 31).

d. 20160120, 39th IBCT OPORD 16-29 (TY16 Annual Training Synchronization Workshop) (UNCLASSIFIED) is issued that includes an attached agenda and draft staff slides (See Exhibit 4).

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e. 20160202, Members of 39th BSB, in particular MAJ Adam Young and CPT Theresa Walker, attend the 39th IBCT AT 2016 Planning Conference at FCJMTTC (See Exhibit 31).

f. 20160211, the 39th IBCT OPERATION ORDER 16-35 OPERATION BOWIE SHIELD (Bowie Annual Training TY16) is issued that contains the directive that units would follow the requirements of ATP 5-19 Risk Management – April 2015, that a DD Form 2977 Deliberate Risk Assessment Worksheets (September 2015) would be executed to the level of mission execution, and that OICs and RSO would receive safety briefings for safe range operations during AT from FCJMTTC Range Control (See Exhibit 5).

g. 20160415, 2LT Daniel Baum received email notification that he would serve as the OIC of the SAPD LFX from CPT Theresa Walker in the form of a CONOP (See Exhibit 30).

h. 20160517, Members of 39th BSB, in particular MAJ Adam Young and CPT Theresa Walker, visited FCJMTTC to continue planning for AT and executing the SAPD LFX (See Exhibit 31).

q. 20160518, ALARACT 042/2016, Heat Illness Prevention for 2016 Heat Season, dated 18 May 2016 is released (See Exhibit 76).

i. 20160604, CW2 Tatum made Heat Safety/Risk Assessment Reference cards available at the Brigade TOC (See Exhibit 92).

j. 20160604, SGT Patton with FCJMTTC Range Control conducted a General Range Safety Brief (See Exhibits 8 and 51), a Small Arms Safety Brief (See Exhibit 9), and had participants sign in. A sign in sheet dated 4 June 2016 includes the signature of 2LT Daniel J. Baum (See Exhibit 10). The General Range Safety Brief includes language that if a medic leaves the range, training will cease until he/she returns or another qualified medic is on site. It also included language that range control would publish current wet bulb status hourly over the primary FM when the heat category reached green, and when time and op tempo allowed as a courtesy to training units. The Small Arms Safety Brief includes language that the minimum PPE level for small arms range is 1 but the unit commander may require a higher level and that communications, medical requirements, and medical emergency procedures are the same as in the General Safety Brief.

k. 20160612, at the Battle Update Brief and the Commanders Update Assessment, the Brigade Safety, CW2 Tatum, covered heat stress as a watch out to the commanders (See Exhibit 92).

l. 20160612, a memorandum is completed certifying that the listed OICs and RSOs

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with the 39th BSB were certified by the Organizational Safety Program for small arms ranges and all training areas for TY 2016, and met the safety certification requirements as listed in AR ARNG 385-63-1, FCJMTTC Range Regulation (See Exhibit 73), and RMTTC Range Regulation that included the name of 2LT Daniel Baum and signed by LTC Gib Richardson as the Commander of the 39th BSB (See Exhibit 11).

m. 20160612, FRAGORD 07 Alpha, 39th BSB OPERATIONS ORDER 16-01 (OPERATION) is issued stating Charlie Med would transition from level 1 to level 2 medical care once the main body arrived (See Exhibit 6). This order also included an SAPD LFX CONOP as Attachment 1 and a timeline of the training related to Range 100 from 12 June through 15 June as Attachment 2 (See Exhibit 6). The SAPD LFX CONOP states under the heading Safety that it will be hot so hydration needs to be monitored. The timeline showed that Alpha Company was scheduled to arrive at Range 100 at approximately 0630 and SP to the cantonment area at approximately 2000 hours.

n. 20160612, Charlie Med does not transition from level 1 to level 2 medical care due to staffing availability as stated in FRAGO 07 Alpha, 39th BSB Operations Order 1601 (Operation) (See Exhibits 6 and 40). 39th IBCT DCO, units are made aware of the change in the Charlie Med medical care level and the level of care provided by the TMC as AT progressed.

o. 20160612, FRAGORD 08 Alpha, 39th BSB OPERATIONS ORDER 16-01 (OPERATION STONEHENGE) (UNCLASSIFIED) is issued with a revised SAPD LFX CONOP as attachment 1 and includes a map of ambulance exchange points (See Exhibit 7).

p. 20160612, 39th BSB completes FTX and moves to cantonment area to begin preparation for SAPD LFX by conducting rehearsals (See Exhibit 15).

q. 20160613 A Co/39th BSB conducts recon of Range 100 with Key Leaders.

r. 201606140500 2LT Daniel Baum (Range 100 OIC) SP's for Range 100, arrives at 201606140540 and begins to receive the participant unit (A Co/39th BSB). (See Exhibit 30).

s. 201606140530, A Co/39th BSB SP's for Range 100AA UV 9938 0171 in support of Range 100.

t. 201606140642, A Co/39th BSB RP's at Range 100AA 9938 0171 in support of Range 100. A Co/39th BSB originally overshot the Range 100AA, arriving at Range 100, then needing to backtrack to the Range 100AA.

u. 201606140700, A Co/39th BSB receives hot breakfast at Range 100AA UV 9938 0171.

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v. 201606140700, FCJMTC General Range Safety Briefing is provided to OIC and RSO (See Exhibit 12). This briefing states that if the MEDIC leaves with a patient you must go into a check fire until they return or give Range Control another medic's name who must meet the same requirements (See Exhibit 12, page 2). The briefing also states that any accident/incident involving medical evacuation out of the training area will be immediately reported to Range Control. Finally, the briefing states that wet bulb will be put out as a courtesy, time permitting, by range control at top of the hour as a net call over all means of communications.

w. 20160614, 39th IBCT Battle Update Assessment brief conducted on this date advised the weather forecast for Fort Chaffee of a high of 95 degrees and a heat index of 109 degrees (See Exhibit 13, page 7). The Med Tracker slides shows BSB had 10 heat related issues to this point of AT (See Exhibit 13, page 21). Safety Slide shows a visit to BSB Live Fire Range 100 conducted by the Brigade Safety Officer within last 24 hours (See Exhibit 13, page 40). The Safety Trends slides stated monitor water usage (ice availability) on lanes and enforce canteen/camelback with water.

x. 20160614, 39th BSB Deliberate Risk Assessment for Small Arms Perimeter Defense LFX is prepared by LT Daniel Baum and signed off on by LTC Gib Richardson (See Exhibit 16). The assessment list as a hazard hot/cold weather injury with an initial risk level of moderate. Under control, the assessment has monitor weather reports, soldier hydration, and wet globe bulb temperature, ensure a water source and sunscreen is available. Under how to implement, the assessment has ensure that soldiers arrive to training hydrated, possess a filled water source, and weather appropriate clothing/equipment, monitor hydration, and be prepared to treat casualties. Under who will implement, the assessment has unit leadership, OIC, NCOIC, Range Safety, personnel supervise, medics are prepared to treat weather injuries, and RSO issues safety briefing. Finally, the assessment lists the residual risk level as low.

y. 201606140700, 2LT Baum briefs the Company Commander and dictates the minimum uniform for the range as: ACU, ACH, FLC, hearing protection, eye protection, and gloves, IBA/IOTV will be worn during blank fire and live fire (See Exhibit 30). That said, there are reports that IOTV's were worn during all phases of the exercise. (See Exhibit 43 and Exhibit 44). This inconsistency will be further discussed below.

z. 201606140750, A Co/39th BSB moves to Range 100 to begin improving firing positions. After approximately an hour, Soldiers began to make it aware that they were running out of water (See Exhibits 30 and 52).

aa. 201606140900 approximately, Possible UXO identified on Range 100 near FP3-Range 100 is delayed for removal of UXO, but Soldiers continue to improve their Firing Points to the North of FP3 (FP3 is the Southernmost FP on Range 100). (See Exhibits 17, 30, 43, 55, and 93).

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bb. 2016140900, CPT Suzette Cox (A Co Commander) identifies that it is already getting hot on Range 100 and Soldiers were doing everything in their IOTV's (See Exhibits 43 and 52).

cc. 2016140900, CPT Cox and A Co. Soldiers request the Water Buffalo be moved from Range 100AA to Range 100 (See Exhibits 33, 43, 52, 61, and 68). The Water Buffalo was originally located at Range 100AA, approximately one mile away (See Exhibit 30, Exhibit 31, and Exhibit 52).

dd. 201606140914, weather at KFSM (Fort Smith Airport) reports the heat index as 84.2 degrees (Heat Cat 2) according to published information from NOAA (See Exhibit 14).

ee. 201614060914, CPT Cox sends text message to 1LT Kubin (A Co XO) to arrange for delivery of ice for Water Buffalo, additional water, and Gatorade (This mission was previously planned to be executed at 201606141300) (See Exhibit 43).

ff. 201606140953, weather at KFSM reports the heat index as 88.8 degrees (Heat Cat 4) according to published information from NOAA (See Exhibit 14).

gg. 201606141000-30, Soldiers from A Co allowed to take first break after arriving at Range 100—it is approximately at this time the Soldiers took a lunch break. (See Exhibit 31).

hh. 201606141030, The Water Buffalo arrived at Range 100 and positioned at the A Co. TOC (See Exhibit 31 and Exhibit 43). Range 100 stretched from FP1-UV 99155 00256 to FP3-UV 99135 99841, or 415 meters, the A Co. TOC is identified to be located directly in the middle of Range 100—approximately 200 meters from the furthest firing point on each end of Range 100 (See Exhibits 7 and 16).

ii. 201606141030 (approximately), A Co/39th BSB initiates first iteration of dry fire on Range 100 (the unit will complete at least three iterations of dry fire before starting blank fire—each iteration of dry fire was approximately 20-30 minutes, with a hot-wash between each iteration) (See Exhibit 31).

jj. 201606141045 to 1300, the Brigade Safety Officer, CW2 Tatum, was on Range 100 during this period of time and spoke with the Range OIC, NCOIC, and the Company Commander (See Exhibit 92). CW2 Tatum told 2LT Baum to shut down the range if there were any safety issues (See Exhibit 92). 2LT Baum reported that there had not been any heat casualties at that point (See Exhibit 92). CW2 Tatum observed adequate leadership coverage on the range and observed no immediate risk (See Exhibit 92).

kk. 201606141053, weather at KFSM reports the heat index as 93.0 degrees (Heat

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Cat 5) according to published information from NOAA (reported weather at KFSM will remain at Heat Cat 5 through 201606142153). (See Exhibits 13, 14, and 93).

ll. 201606141148, CPT Cox receives text message from 1LT Kubin that the ice and water mission is ready to SP, but they are waiting for LTC Gib Richardson (39th BSB Battalion Commander) who will ride with them to Range 100 (See Exhibit 43).

mm. 20160614XXXX it is unclear when, but sometime after LTC Richardson arrived at Range 100 and during the dry fire iterations, the decision was made to down grade the uniform from IOTV during all phases to no IOTV during blank fire and dry fire (See Exhibits 30, 31, and 91). This also contradicts the guidance in 2LT Baum's sworn statement (See Exhibit 30) advising the uniform was no IOTV until blank fire began. Several statements identify Soldiers continue to wear the IOTV throughout the day (See t 41, 44, 52, 56 and 91). Not long after LTC Richardson arrived on the range, SGT Cox, the M-4 Safety Officer, told LTC Richardson that he had assessed and treated two heat casualties already who were cooling off in an air conditioned HMMWV (See Exhibit 94). LTC Richardson discussed with SGT Cox heat mitigation issues and assessed the measures that were being implemented (See Exhibit 94).

nn. 201606141200 (approximate) CPT Cox identifies in her sworn statement the unit is in Heat Category 5 (See Exhibit 43).

oo. 201606141239, 1LT Kubin arrives with 20 bags of ice and Gatorade (1LT Kubin executed a second Ice mission per CPT Cox's request at 201606141630) LTC Gib Richardson arrived with 1LT Kubin and stays until the end of the training day (See Exhibit 43).

pp. 201606141250, SSG Jobe at Range Control placed a wet bulb out and waited ten (10) minutes to allow it to acclimate to the weather outside (See Exhibit 49). At around 1300, SSG Jobe checked the reading and had SFC Mikkelson verify that he was reading it correctly. It was Heat Category 5. SSG Jobe broad casted it over the net and logged it into the 1594 log (See Exhibits 17 and 49).

qq. 201606141253, weather at KFSM reports the heat index as 96.0 degrees (Heat Cat 5) according to published information from NOAA (See Exhibits 13-14).

rr. 201606141319, Heat category put out by SSG Jobe via net call at Heat Cat 5, 101 Degrees, and put into the 1594 log (See Exhibit 17, page 10, and Exhibit 49).

ss. 201606141330-1500, This is approximately when the 3 dry fire iterations were complete. (See Exhibit 30).

tt. 201606141421, Range 100 calls in two possible UXOs (See Exhibit 17).

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uu. 201606141453 weather at KFSM reports the heat index as 100.7 degrees (Heat Cat 5) according to published information from NOAA (See Exhibits 13-14).

vv. 201406141500 SPC Sylvester Cline identified as showing signs and symptoms of succumbing to the heat and is evaluated by range medics SPC Fields and PFC Hargett (See Exhibits 19 and 31). There is an inconsistency on when SPC Cline was first identified as succumbing to the heat (See Exhibit 19, 32, and 93). This inconsistency will be addressed below in the findings section.

ww. 201606141530 2LT Baum identifies SPC Smith as a possible heat casualty. SPC Smith is treated at Range 100AA (Exhibit 30), but is not later identified as a heat casualty in the BSB heat casualty slides (Exhibit 19).

xx. 201606141530, SPC Davis and SPC Bautista are evaluated by medics SPC Fields and SGT Sutton and later removed from Range 100 by FLA to AXP 6, then transported to the rear administratively in NTV (See Exhibits 19, 30, 32, and 93).

yy. 201606141530-1613 (approximately), SPC Fields expresses to LTC Richardson and MAJ Young that it was hot and not enough breaks were being taken (See Exhibit 89).

zz. 201606141545, 2LT Baum requests a "hot time" for blank fire—this is also reflected in the Chaffee range control incident log (1594) (See Exhibit 18 and 30).

aaa. 201606141545-1615 (approximately), 2LT Baum made a recommendation to MAJ Young that at this point the level of training being received was not worth the risk of injury (See Exhibits 30 and 91). 2LT Baum told MAJ Young that he wanted it noted that he thought they needed to cease training as it was not beneficial at that point and asked if he should direct that recommendation to LTC Richardson (See Exhibits 30 and 91). MAJ Young said that he would speak to LTC Richardson (See Exhibits 30 and 91). MAJ Young spoke with LTC Richardson and it was decided that the blank fire iteration would be finished and reevaluate the possibility of conducting the live fire portion (See Exhibit 91 and 94).

bbb. 201606141553, weather at KFSM reports the heat index as 103.2 degrees (Heat Cat 5) according to published information from NOAA (See Exhibits 13-14).

ccc. 201606141613 MAJ Young advises he approved request of MSG David Farquaharson (188th OC/T) to evacuate 3 ambulatory suspected heat casualties (Cline, Davis, and Bautista) to the rear AO by FLA with exchange at Ambulance Exchange Point (AXP) 6 at intersection of Marietta Church Road and Highway 22 (See Exhibits 19, 31, and 93).

ddd. 201606141615, SPC Cline evaluated again by medics SGT Sutton and SPC Winters (See Exhibits 19, 88, and 90). There is an inconsistency on when SPC Cline

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was first identified as succumbing to the heat (See Exhibits 19, 31, 88, and 90). This inconsistency will be addressed below in the findings section.

eee. 201606141630, During the trip to the rear AO for SPC Cline and others, SPC Cline's condition worsened and mission turned into a medical transport to TMC at FT Chaffee (See Exhibits 19 and 32).

fff. 201606141653, weather at KFSM reports the heat index as 100.7 degrees (Heat Cat 5) according to published information from NOAA (See Exhibits 13-14).

ggg. 201606141700, Decision made to transport SPC Cline directly to TMC by medics in FLA (See Exhibit 32).

hhh. 201606141710, Upon arrival at front gate to FT Chaffee, SPC Cline was demonstrating an altered mental state per medic, SGT Nathan Sutton See (Exhibit 32).

iii. 201606141715, SPC Cline arrives at TMC and is treated by treatment team at TMC, SPC Cline advised treatment team he could not walk (See Exhibits 19 and 35).

jjj. 201606141731, 9 Line Medevac called by SFC Jody Wright on the direction of MAJ Natascha McBride advising SPC Cline was unconscious (See Exhibits 18, 35 and Exhibit 40). At the time of the call, Range 100 was in in hot/live fire status and had not notified range control of the heat casualty (See Exhibit 18). Range 100 was placed into a check fire and instructed to have Range OIC call Range Control.

kkk. 201606141732 to 1752, 2LT Baum called range control. FDO Patton inquires as to why range control had not been notified of the incident involving SPC Cline. 2LT Baum apologized and informed FDO Patton that there were two other heat casualties, SPC Davis and SPC Batista, under the care of the unit medics that had been brought to the barracks (See Exhibit 18).

lll. 201606141737, Range control journal log shows Range 100 was changed from unit firing- unrestricted to cease-fire (See Exhibit 17).

mmm. 201606141740, CPR initiated on SPC Cline (See Exhibit 35 and Exhibit 19).

nnn. 201606141750, Flight medic attempted to intubate SPC Cline (See Exhibit 19).

ooo. 201601141752, CPT Woods advised FDO Patton to keep Range 100 in a check fire until current OIC and RSO came to range control to receive re-training or replaced with other qualified personnel (See Exhibits 18 and 50).

ppp. 201601141752 (approximately after yy. above), 2LT Baum called Patton at

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Range Control to report another heat casualty from Range 100, SSG Samuel L. Kell. SSG Kell is transported to the TMC. SSG Kell was later transported to Mercy Hospital by FLA with a core temperature of 102.9 (See Exhibits 18, 19, and 68). SSG Kell was treated and released from Mercy Hospital (See Exhibit 19).

qqq. 201606141753, weather at KFSM reports the heat index as 100.7 degrees (Heat Cat 5) according to published information from NOAA (See Exhibits 13-14).

rrr. 201606141800, Medevac departed FT Chaffee (See Exhibit 19).

sss. 201606141805, Medevac arrived at Mercy Hospital (See Exhibit 19).

ttt. 201606141817, SPC Cline pronounced dead by hospital staff (See Exhibit 19).

vvv. 201606141853, weather at KFSM reports the heat index as 99.3 degrees (Heat Cat 5) according to published information from NOAA (See Exhibits 13-14).

www. 201606141914, 2LT Baum notifies range control of another heat casualty, SPC Malrick, and advises the Servicemember would be evaluated on site (See Exhibit 18).

xxx. 201606141923, 2LT Baum notifies range control that SPC Malrick would be transported to the TMC for further care (See Exhibit 18).

yyy. 201606141953, weather at KFSM reports the heat index as 97.0 degrees (Heat Cat 5) according to published information from NOAA (See Exhibits 13-14).

zzz. 201606141956, FDO Patton was advised that SPC Malrick was flown by Medevac to Mercy Hospital and arrived there at 2002 hours (See Exhibit 18). SPC Malrick was released from Mercy Hospital around 2147 hours (See Exhibit 19).

aaaa. 201606142215, 39th BSB status on Range 100 changed from training complete to departed (See Exhibit 17).

5. Findings. After a thorough review of the evidence gathered in the course of my investigation, I have concluded that:

a. Findings Related to the Incident:

(1) Battalion and company leadership failed to comply with the requirements of ALARACT 042/2016 (See Exhibits 76, 91, and 94). ALARACT 042/2016, which directs Army units conducting operations in hot weather environments to develop a written heat stress prevention program and directs commanders to "immediately re-evaluate all unit

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personnel and mitigation actions when any heat illness occurs" (See Exhibit 76 at 4.B.1.Q.). Battalion and company leadership did not develop a written heat stress prevention program and did not stop range operations to re-evaluate after the initial heat illness (See Exhibits 30, 31, 44, 91, and 94). The guidance in ALARACT 042/2016 is material to this investigation as SPC Cline was one of multiple Soldiers to show the signs and symptoms of succumbing to the heat at Range 100 on the afternoon of June 14th, 2016 (See Exhibit 19). Additionally, by mixed reports, SPC Cline had previously identified to at least one of the medics on Range 100 that he was suffering from heat cramps earlier in the day (See Exhibit 19). The leadership on the range did not re-evaluate all personnel or reassess the mitigation actions it had in place on Range 100, even after it evacuated three heat casualties from Range 100. The leadership on the range did not cease training on Range 100 until FT Chaffee Range Control decertified the Range OIC and RSO for failure to report the heat casualties throughout the day and closed Range 100. (Exhibits 50 and 51).

(2) 39th BSB leadership and staff did not adequately identify the hazards associated with training in the hot weather environment on 20160614. A deliberate risk assessment (DD FORM 2977) was prepared for Range 100 (See Exhibit 16) by 2LT Baum. The Deliberate Risk Assessment form prepared by 2LT Baum and approved by LTC Richardson, appears to have been adopted from a previously used (or canned) statement with respect to the identified hazard of "hot/cold weather injury" and did not sufficiently address the magnitude of the hazard of training in a hot and humid weather environment (See Exhibit 16). Additionally, unit leadership did not adequately identify, implement, and monitor sufficient controls to mitigate the hazard. The control and implementation guidance identified on the deliberate risk assessment demonstrates the unit was tangentially aware of the Army guidance with respect to training in a hot weather environment. However, as the sworn statements identify, it is clear the individual uniform mitigation guidance identified on the deliberate risk assessment was not followed or strictly adhered to.

(3) Range 100 was planned and resourced in accordance with the requirements of the Ft Chaffee Range Regulation (See Exhibit 73) and the AR ARNG Range Safety SOP (See Exhibit 72). The planning was adequate with the exception of ensuring a sufficient and accessible water supply (See Exhibits 6 and 7).

(4) The unit leadership did not provide the Soldiers on Range 100 with sufficient access to appropriate sources of hydration throughout the training day. Water, ice, and Gatorade was planned for Range 100, but was not pushed to the range as early in the day as necessary. CPT Suzette Cox identified in her sworn statement (Exhibit 43) her company planned to resource ice and Gatorade to supplement the water buffalos available at Range 100, but did not plan to execute this mission until 1300 on the 14th. Also, Range 100 was planned to be conducted at two locations, the Range 100AA (assembly area) and the Range 100 firing line (See Exhibit 7). The water buffalo

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provided for Range 100 was initially posted at the Range 100AA (See Exhibit 43). The assembly area was approximately one mile from the firing line. Soldiers started reporting early in the day on 14 June they were running black on water (See Exhibits 52). At this time, the water buffalo was stationed at the Range 100AA approximately one mile from the firing line (Exhibit 30, Exhibit 31, and Exhibit 52). The water buffalo was finally moved to Range 100 at approximately 1030. (Exhibit 31 and Exhibit 52). Based on the conditions present at Range 100 on June 14th, the Soldiers on the range requested and received permission, then resourced with their LMTV to move the water buffalo from the Range 100AA to a location just behind the Range 100 firing line. (Exhibit 30). This placed the water buffalo no more than 200 meters from any Soldier training on Range 100 (See Exhibits 8, 31, & 43). Also, CPT Cox worked with her XO, 1LT Kubin, to arrange to move the planned ice and Gatorade mission to earlier in the day on June 14th (See Exhibit 43). The mission was delayed and did not arrive until 12:39, 21 minutes prior to its planned time of arrival (See Exhibit 43). The battalion commander decided to ride out to the range with the convoy bringing the ice and Gatorade (See Exhibit 43) which resulted in the delay.

(5) The unit did not adequately mitigate the uniform for the Soldiers on Range 100. If guidance was provided on the status of the individual uniform, it was not adequately disseminated with appropriate command guidance. (See Exhibits 30, 31, 43, 91, and 94).

(6) The unit did not follow the requirements for reporting medical evacuations from Range 100 to Range Control, as required by FCJMTTC Range Safety Briefing and the AR ARNG Range Safety SOP (See Exhibits 12 and 72). The unit took the steps to have FT Chaffee Range Control certify the training for the Range OIC, NCOIC, and RSO as required by FT Chaffee Range Regulations (See Exhibit 11). Despite the training, the unit failed to report to Range Control the evacuation of three heat casualties from Range 100 as required by the FT Chaffee range safety briefing. This resulted in Range Control decertifying the Range OIC, NCOIC and RSO. This resulted in Range Control placing Range 100 in an administrative check fire (See Exhibit 51).

(7) It started getting hot early that morning, with the temperature continuing to rise throughout the day (See Exhibits 14, 19, and 49). Based on published historical weather data, the unit was in a Heat Category 5 environment from 1053 hours in the morning until 2153 hours that same night. (See Exhibits 14 and 17). Numerous sworn statements indicate that the medics on the range were pushing out the Heat Category on net calls.

(8) 2LT Baum, CSM Franks, and CPT Cox were present on Range 100 during the entirety of operations. (See Exhibit 30 and Exhibit 43).

(9) LTC Gib Richardson arrived on the range at approximately 1239. Once

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LTC Richardson, the 39th BSB Battalion Commander, was present on the range, he became accountable for the actions of the leaders and the Soldiers with respect to the environment and the prescribed uniform. Further, his Battalion CSM, CSM Franks, was present on Range 100 from the initial set-up of the range on 20160614 through the decertification of Range 100 by Range Control that evening. From the time of the Battalion Commander's arrival it was tantamount to his duty to ensure every Soldier was taking appropriate precautions to mitigate the effect of the environment. It was the duty of the Battalion CSM to appropriately advise the Commander based on the conditions and the effect of the conditions on the Soldiers in the training environment. Their respective duty included to ensure no Soldier continued to wear their individual body armor (until the live fire iteration).

(10) Both 2LT Baum, the Range OIC, and SGT Cox, the M-4 Safety Officer, voiced their concerns to LTC Richardson for the safety of the Soldiers due to the heat, however, training continued. (See Exhibit 30, 34, 91, and 94). Further, 2LT Baum and 2LT Craig both discussed the issue with the Battalion CSM, CSM Franks. (See Exhibit 30, 52, 63, and 93).

(11) Beginning at approximately 1500 - 1530, multiple Soldiers were reported as having possible heat injuries (SPC Smith, SPC Bautista, SPC Davis, SPC Cline, SSG Kell, and SPC Malrick). (See Exhibit 30 and 68). Multiple Soldiers stated that despite the heat and the heat related injuries, LTC Richardson continued the training. (See 30, 36, 38, 43, 59, 61, 63 and 91). The unit did not cease training on Range 100 until FT Chaffee Range Control decertified the Range OIC and RSO for failure to report the heat casualties throughout the day and closed Range 100 (See Exhibit 51).

(12) SPC Sylvester Bruce Cline showed signs and symptoms of succumbing to heat at approximately 2016061545 while at Range 100 at FCJMTTC (See Exhibit 32). SPC Cline's death occurred after he was identified as having a possible heat related injury. An autopsy is being performed, the results of which will be made available to the Arkansas National Guard (See Exhibit 87) through the Arkansas National Guard Chief of Military Justice. It should be noted that the Findings and Recommendations contained herein are preliminary and may be supplemented, IAW AR 15-6, Section 2-5, a., after review of the complete autopsy being conducted by the State Medical Examiner's Office of the Arkansas State Crime Laboratory (See Exhibit 87). The estimated completion dates of the Arkansas State Crime Laboratory autopsy is anywhere from three (3) weeks to two (2) months from the date of this memorandum.

(13) The main inconsistencies in the witness statements relate to the timeline, guidance received by the Soldiers with respect to uniform status, work/rest cycles as the heat category changed throughout the day, the time and source of the heat category warnings received by the unit at Range 100, the number of times SPC Cline was reported as a heat casualty, and the observations of the 5-306th BSB, 188th INF BDE

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personnel. I address each of these inconsistencies, my conclusion, and how I reached my conclusion below:

i. As to the timeline, a general reading of the statements attached as exhibits will reveal very few definite hard times throughout the day. It is clear the original timeline for the range was delayed by several factors (See Exhibit 7). The first significant delay was the discovery of a suspected unexploded ordnance (UXO) near firing point 3 (FP3) (See Exhibits 17, 30, 43, & 55). The training for the unit was also delayed throughout the day by leadership directing multiple iterations of dry fire and blank fire based on perceived training deficiencies. (See Exhibits 30, 31, 43, & 55). There is also confusion in the statements as to the precise time SPC Cline first identified himself as potentially succumbing to the effects of the heat. (See Exhibits 30, 31, 32, 36, & 43). Finally, it is not clear both who and when the direction was given to allow SGT Sutton to depart Range 100 in the FLA with Davis, Baulista, and Cline. (See Exhibits 17, 27, 30, 31, 32, 36, & 43).

ii. As to the duty uniform, there were inconsistencies in the original uniform status prescribed by leadership for the range, specifically whether the individual body armor was to be worn throughout the day for all activities or, whether it would only be worn when the blank fire iteration was started and then for the live fire iteration. According to 2LT Baum's statement (See Exhibit 30), the initial briefing dictated a minimum uniform for the range as: ACU, ACH, FLC, hearing protection, eye protection, and gloves, with IBA/IOTV to be worn during blank fire and live fire. 2LT Baum later states that he requested that blank fire operations be conducted without the IBA/IOTV (See Exhibit 30). MAJ Young, however, states that IOTV was initially worn during all phases, but was downgraded by LTC Richardson during blank and dry fire (See Exhibit 31 and 91). LTC Richardson stated that he was informed that the NCO's had the Soldiers wearing their IOTV's even though 2LT Baum and MAJ Young told them they didn't have to, and that a few NCO's continued to wear them all day (See Exhibit 44 and Exhibit 52, Statement of 2LT Jonathan Craig, and Exhibit 93). CSM Franks stated that the uniform of the day was originally going to be LBV or FLC, helmet, gloves, water sources, vest with plates, and weapons (See Exhibit 93). CSM Franks stated that LTC Richardson put out that the uniform was not going to be vest with plates added until live fire (See Exhibit 93 and 94). CPT Cox stated that the Soldiers were wearing their IOTV while building their firing positions, in contradiction to what 2LT Baum stated (See Exhibit 43). SPC Davis stated that the Soldiers were in full "battle rattle" around 0630 (Exhibit 38, 63, and 39). LTC Richardson stated that the initial plan was to conduct the blank fire in IOTV however, based on the heat, he authorized the conducting of the blank fire iteration without adding the IOTV (See Exhibit 94).

iii. As to the work rest/cycles, the sworn statements attached to the investigation do not reflect a deliberate decision by the leadership at Range 100, the company, or the battalion to alter the activity on Range 100 specifically in respect to the known or

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identified heat category and the published Army guidance on mitigation for training in a hot weather environment. Several of the statements do refer to the "hot wash" following iterations on the range as proof the unit was observing a work/rest cycle (See Exhibits 25, 31, 91, and 93). However, in clear contradiction to this, several of the Soldiers on Range 100 identified there were no "rest cycles" and did not view the "hot washes" as a rest period out of the heat or out of the prescribed uniform (See Exhibits 43, 55, 63, & 68). There is no evidence that the standard work/rest times for Heat Category 5 and moderate work, which includes marksmanship training, were implemented which suggest forty (40) minutes of rest for every twenty (20) minutes of work (See Exhibits 78 and 83).

iv. The 39th IBCT published a digital Battle Update Assessment (BUA) as part of its battle rhythm for AT 2016 (See Exhibit 13). Included in the BUA was a published 5-day weather forecast for FT. Chaffee. (See Exhibit 13, page 7). The weather for Tuesday, June 14, 2016 was forecast for a high of 95 degrees with an identified heat index of 109 degrees. This forecast placed the training environment into a heat category of 5, which identifies attendant uniform and work rest cycle mitigations per published Army guidance (See Exhibit 84). The unit planned to train wearing their individual body armor as part of the prescribed uniform. Army guidance advises training while wearing individual body armor raises the heat index by 5 degrees. Also, the unit is directed by Army guidance to maintain a Wet Bulb Globe Thermometer and monitor it hourly (See Exhibit 84). Numerous sworn statements attest the unit was tracking the WBGT and also received net calls from FT Chaffee Range Control on the status of the WBGT index (See Exhibits 36, 43, & 68).

v. According to the BSB Heat Casualty Medical care slides (See Exhibit 19), SPC Cline was initially evaluated by C Med medics SPC Fields and PFC Hargett at approximately 1500 and the cool down process was begun. (Exhibit 70). The report states that SPC Cline then chose to return to training at the range. (Exhibit 19). A second evaluation was performed by C Med medics at approximately 1615, which resulted in SPC Cline's evacuation. (Exhibit 19). The initial evaluation was addressed in SPC Fields' second statement, whereby SPC Fields' stated this evaluation occurred during "...during the dry interaction..." (Exhibit 89). SPC Cline's initial heat injury was corroborated by SGT Neal (assigned to FP1 with SPC Cline), whereby he stated that SPC Cline left to go to the shade to cool off. (Exhibit 41). Per SGT Neal, SPC Cline then returned one last time to attempt to continue, but could not and left. (Exhibit 41).

vi. Address statements from Observers. I did not find the statements from LTC Andrew Mack, MSG David Farquharson, or CSM Ramon Reyes-Ortiz with the 5-306th BSB, 188th INF BDG (See Exhibit 25, 26, 27) persuasive. These individuals were not on the range the entire day, from their statements they did not appear to have knowledge of the heat category on the range, and none of them provided evidence they were familiar with the requirements of ALARACT 042/2016 (See Exhibit 76) and in particular the

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requirement to "immediately re-evaluate all unit personnel and mitigation actions when any heat illness occurs" (See Exhibit 76 at 4.B.1.Q.).

b. Findings Regarding Deficiencies with Policy, Procedures, Training, and Leadership.

(1) Army Technical Publication No. 5-19 (ATP 5-19) provides Army doctrinal guidance on Risk Management (See Exhibit 86). It incorporates the safety guidance and techniques outlined in other Army publications to provide a framework for leaders to identify and assess hazards then develop, implement, and monitor controls to mitigate the hazards. The Army guidance assumes risk management will be a deliberate staff process implemented in a manner to allow risk decisions to be made at the appropriate level. ATP 5-19 (See Exhibit 86) states that risk management is to be a cyclical and continuous process specifically geared to allow leaders to accept no unnecessary risk.

(2) At the time of this incident, ALARACT 042/2016 - All Army Activities guidance on Heat Illness Prevention for 2016 Heat Season was in effect. (See Exhibit 76). This ALARACT is annual guidance (See Exhibit 76 and 77) issued by HQDA referencing not only all of the attendant Army guidance on heat illness, injury, prevention, and mitigation, but also prescribes annual training and risk assessment techniques for training in a hot weather environment. Among the references in ALARACT 042/2016 is TRADOC Regulation 350-29, which includes specific guidance on preparing the DD FORM 2977 Deliberate Risk Assessment for training in a hot weather environment (the regulation identifies an earlier form for the DRA, but the substance is the same) and outlines and provides concise guidance on the practical implementation of many of the mitigation techniques identified in other Army guidance (See Exhibit 80). Specifically, ALARACT 042/2016 (See Exhibit 76), directs Army units conducting operations in hot weather environments to develop a written heat stress prevention program. The ALARACT further directs commanders to "immediately re-evaluate all unit personnel and mitigation actions when any heat illness occurs" (See Exhibit 76 at 4.B.1.Q.).

(3) The Arkansas Army National Guard lacks a strategic level heat illness prevention program in regards to the recognition, prevention, and mitigation strategies related to heat illness prevention as outlined in ALARACT 042/2016 - All Army Activities guidance on Heat Illness Prevention for 2016 Heat Season (See Exhibit 76).

(4) While the FJCMTC does have some material related to heat illness prevention within its briefings and SOPs (See Exhibits 8, 9, 12, 72 and 73), it lacks a comprehensive guide to provide guidance to commanders in preventing environmental heat casualties and is not as complete as recommended in ALARACT 042/2016 - All Army Activities guidance on Heat Illness Prevention for 2016 Heat Season (See Exhibit 76).

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(5) While the Fort Chaffee Training Site AR ARNG Range Safety SOP dated 6 March 2013 (See Exhibit 72) states that Range Control will announce the current wet bulb status AT THE RANGE CONTROL BUILDING hourly over the primary FM frequency when the heat category reaches green, other Fort Chaffee material states that this information will broadcast based on operation tempo or as time permitted (See Exhibits 8 and 12). It is apparent from numerous statements that the information was being pushed out but not put into the log.

(6) The Fort Chaffee Regulations, SOPs, and training briefs have inconsistent language regarding the reporting requirements for heat casualties (See Exhibits 8, 9, 12, 72, and 73). Only the FCJMTTC Range Safety Briefing (See Exhibit 12) makes it clear that any accident/incident involving medical evacuation out of the training area will be immediately reported to Range Control. These other materials are not as direct on this subject.

(7) The TY16 Annual Training Synchronization Workshop conducted on 2-3 February 2016 did not address or discuss heat illness prevention (See Exhibit 4).

c. Findings Regarding Individual Subjects.

(1) [REDACTED]

(2) Based on the facts and findings above, I find that CSM Charles Franks, 39th BSB Command Sergeant Major, was negligent in the performance of his duties as a member of the command team by putting training before safety. CSM Franks failed to ensure uniform downgrading was performed due to the deteriorating weather and did not cease operations after the initial heat injury to reassess (See Exhibit 34, 63, 76, and 91). CSM Frank's inaction in regards to heat illness prevention placed subordinate Servicemembers at risk for heat related illness. Additionally, based on his authority as a member of the command team for the battalion, CSM Franks' negligence extends to all

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of the actions and omissions of the unit. CSM Franks did not display the degree of care of a reasonable senior non-commissioned officer with his education, training, background, and experience, constituting negligence.

(3) [REDACTED]

(4) [REDACTED]

6. Recommendations. In view of the above findings, I make the following recommendations:

a. Arkansas Army National Guard Recommendations:

(1) [REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

b. Specific Recommendations Regarding Subjects:

(1) [REDACTED]

(2) CSM Charles Franks should be formally counseled regarding his negligence and failures in leadership. CSM Franks should be considered for a Letter of Reprimand IAW AR 600-37, Unfavorable Information, Chapter 3. It is further recommended consideration be given to relieving CSM Franks from the command team of the 39th BSB IAW AR 600-20, Army Command Policy. Consideration should be given to issuing CSM Franks a relief for cause Non-Commissioned officer evaluation report IAW AR 623-3, Evaluation Reporting System. Additionally, CSM Franks should receive individual training and on heat illness prevention to include the recognition and prevention of heat injury, and mitigation strategies (See Exhibits 78, 82, and 84).

(3) [REDACTED]

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[REDACTED]

(4) [REDACTED]

(5) The AR 15-6 Investigation should be referred to the Arkansas National Guard Chief of Military Justice for review to determine what action, if any, may be appropriate under the Military Code of Arkansas (MCA) for possible violations of Section 817 – Failure to obey order or regulation, in particular the offense of dereliction in the performance of duties, or other punitive sections of the MCA.

7. Point of Contact. The point of contact for this memorandum is the undersigned at [REDACTED]

[REDACTED]